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Box 89

<b>IN THE UNITED STATES PATENT AND TRADEMARK OFFICE</b> 	Application Number	10/058,053
	Filing Date	29 January 2002
	First Named Inventor	Robert M. JONES
	Group Art Unit	1645
	Examiner Name	
	Attorney Docket No.	2314-248
Title of the Invention: <b>BETA-SUPERFAMILY CONOTOXINS</b>		

### RESPONSE TO NOTICE OF MISSING PARTS


Assistant Commissioner for Patents  
**attn: BOX MISSING PARTS**  
 Washington, D.C. 20231

Dear Sir:

In response to the *Notice of Missing Parts of Nonprovisional Application* mailed 05 March 2002, Applicants submit four executed Declaration and Power of Attorney documents referencing the above application by serial number and filing date, along with a check for the following fees:

	\$ 370.00	filing fee (small entity)
	65.00	surcharge
	<u>621.00</u>	extra claims
	\$1,056.00	FILING FEE
including	<u>200.00</u>	two (2)-month extension
	\$1,256.00	TOTAL CHECK AMOUNT

Please charge or credit any discrepancies in fee payment to Deposit Account No. 02-2135.  
 A duplicate copy of this letter is enclosed for that purpose, along with a copy of the PTO Notice.

RESPECTFULLY SUBMITTED,					
NAME AND REG. NUMBER	Jeffrey L. Ihnen, Reg. No. 28,957				
SIGNATURE		DATE	05 JULY 2002		
Address	ROTHWELL, FIGG, ERNST & MANBECK, pc Suite 800, 1425 K Street, N.W.				
City	Washington	State	D.C.	Zip Code	20005
Country	U.S.A.	Telephone	202-783-6040	Fax	202-783-6031

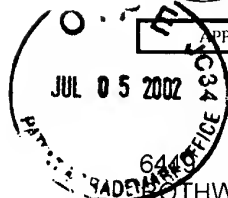
# 3



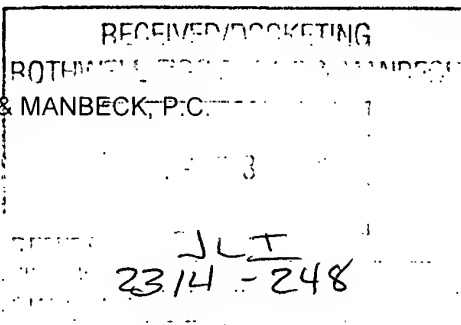
## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/058,053	01/29/2002	Robert M. Jones	2314-248



ROTHWELL, FIGG, ERNST & MANBECK, P.C.  
1425 K STREET, N.W.  
SUITE 800  
WASHINGTON, DC 20005



CONFIRMATION NO. 3665

## FORMALITIES LETTER



\*OC000000007581944\*

Date Mailed: 03/05/2002

## NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

07/10/2002 BABRAHA1 00000136 10058053

FILED UNDER 37 CFR 1.53(b)

01 FC:201	370.00 OP
02 FC:205	65.00 OP
03 FC:203	369.00 OP
04 FC:202	252.00 OP

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.  
*Applicant must submit \$ 370 to complete the basic filing fee for a small entity.*
- Total additional claim fee(s) for this application is \$621.
  - \$369 for 41 total claims over 20.
  - \$252 for 6 independent claims over 3.
- The oath or declaration is missing.  
*A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(l) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.
- The balance due by applicant is \$ 1056.**
- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:


- For Rules Interpretation, call (703) 308-4216

COPY

- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or [patin3help@uspto.gov](mailto:patin3help@uspto.gov)

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*A copy of this notice **MUST** be returned with the reply.*

  
\_\_\_\_\_  
Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

2122

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



**RAW SEQUENCE LISTING  
ERROR REPORT**



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/058,053  
Source: OIPK  
Date Processed by STIC: 2/15/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER  
VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND  
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002



OIPE



## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/058,053

DATE: 02/15/2002

TIME: 14:50:11

Input Set : A:\2314-248.ST25.txt

Output Set: N:\CRF3\02152002\J058053.raw

PP.513

Does Not Comply  
Corrected Diskette Needed

3 &lt;110&gt; APPLICANT: University of Utah Research Foundation

4 Cognetix, Inc.

5 Jones, Robert M.

6 Garrett, James E.

7 Watkins, Maren

8 Olivera, Baldomero M.

10 &lt;120&gt; TITLE OF INVENTION: B-Superfamily Conotoxins

12 &lt;130&gt; FILE REFERENCE: 2314-248

14 &lt;140&gt; CURRENT APPLICATION NUMBER: US/10/058,053

14 &lt;141&gt; CURRENT FILING DATE: 2002-01-29

14 &lt;150&gt; PRIOR APPLICATION NUMBER: US 60/264323

15 &lt;151&gt; PRIOR FILING DATE: 2001-01-29

17 &lt;160&gt; NUMBER OF SEQ ID NOS: 340

19 &lt;170&gt; SOFTWARE: PatentIn version 3.0

21 &lt;210&gt; SEQ ID NO: 1

22 &lt;211&gt; LENGTH: 456

23 &lt;212&gt; TYPE: DNA

24 &lt;213&gt; ORGANISM: Conus flavidus

26 &lt;220&gt; FEATURE:

27 &lt;221&gt; NAME/KEY: CDS

28 &lt;222&gt; LOCATION: (7)..(255)

30 &lt;400&gt; SEQUENCE: 1

31 ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg tgg 48

32 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp

33 1 5 10

35 att aca gcc cct ctg tct gaa ggt ggt aaa ttg aac gac gta att cgg 96

36 Ile Thr Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg

37 15 20 25 30

39 ggt ttg gtg cca gat gac tta acc cca cag ctt att ttg caa agt ctg 144

40 Gly Leu Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Gln Ser Leu

41 35 40 45

43 gat tcc cgt cgt cat gat cac ggc att cgt ccg aag aga gtc gac ata 192

44 Asp Ser Arg Arg His Asp His Gly Ile Arg Pro Lys Arg Val Asp Ile

45 50 55 60

47 tgt aac tgg agg ata tgt gca cca aac cca ttg aga cga cat gat ctt 240

48 Cys Asn Trp Arg Ile Cys Ala Pro Asn Pro Leu Arg Arg His Asp Leu

49 65 70 75

51 aag aaa gga aac aat tgacgtcaga caaccgccac aacttgagta cgacatcgtt 295

52 Lys Lys Gly Asn Asn

53 80

55 aatacgactt cagcaaatat gaaattttca gcatcactgt ggttgtgaag aaatcagttg 355

57 ctttaaaagg ttggatttgt ccttggttaa gccgtgtgac tgatgacatc tctgcactat 415

59 gaaataaagc tgatgtgaca aactaaaaaa aaaaaaaaaa a 456

## RAW SEQUENCE LISTING

DATE: 02/15/2002

PATENT APPLICATION: US/10/058,053

TIME: 14:50:11

Input Set : A:\2314-248.ST25.txt

Output Set: N:\CRF3\02152002\J058053.raw

62 &lt;210&gt; SEQ ID NO: 2

63 &lt;211&gt; LENGTH: 83

64 &lt;212&gt; TYPE: PRT

65 &lt;213&gt; ORGANISM: Conus flavidus

67 &lt;400&gt; SEQUENCE: 2

69 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Trp Ile Thr

70 1 5 10 15

73 Ala Pro Leu Ser Glu Gly Gly Lys Leu Asn Asp Val Ile Arg Gly Leu

74 20 25 30

77 Val Pro Asp Asp Leu Thr Pro Gln Leu Ile Leu Gln Ser Leu Asp Ser

78 35 40 45

81 Arg Arg His Asp His Gly Ile Arg Pro Lys Arg Val Asp Ile Cys Asn

82 50 55 60

85 Trp Arg Ile Cys Ala Pro Asn Pro Leu Arg Arg His Asp Leu Lys Lys

86 65 70 75 80

89 Gly Asn Asn

93 &lt;210&gt; SEQ ID NO: 3

94 &lt;211&gt; LENGTH: 33

95 &lt;212&gt; TYPE: PRT

96 &lt;213&gt; ORGANISM: Conus flavidus

98 &lt;220&gt; FEATURE:

99 &lt;221&gt; NAME/KEY: PEPTIDE

100 &lt;222&gt; LOCATION: (1)..(33)

101 &lt;223&gt; OTHER INFORMATION: Xaa at residues 7, 20 and 22 may be Pro or hydroxy-Pro; Xaa at re

102 sidue 15 may be Trp (Dor L) or bromo-Trp (Dor L)

105 &lt;400&gt; SEQUENCE: 3

W-&gt; 107 His Asp His Gly Ile Arg Xaa Lys Arg Val Asp Ile Cys Asn Xaa Arg

108 1 5 10 15

W-&gt; 110 Ile Cys Ala Xaa Asn Xaa Leu Arg Arg His Asp Leu Lys Lys Gly Asn

111 20 25 30

113 Asn

116 &lt;210&gt; SEQ ID NO: 4

117 &lt;211&gt; LENGTH: 374

118 &lt;212&gt; TYPE: DNA

119 &lt;213&gt; ORGANISM: Conus miles

121 &lt;220&gt; FEATURE:

122 &lt;221&gt; NAME/KEY: CDS

123 &lt;222&gt; LOCATION: (7)..(315)

125 &lt;400&gt; SEQUENCE: 4

126 ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg gtg 48

127 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Val Val

128 1 5 10

130 ggg ctc acc gtc ggg agt cac gtc cat cgg tct cac agt cct aca tcg 96

131 Gly Leu Thr Val Gly Ser His Val His Arg Ser His Ser Pro Thr Ser

132 15 20 25 30

134 cgc agc cat ggt gat gac tcc att cat gac aag acg att cat caa cat 144

135 Arg Ser His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His

136 35 40 45

138 ctg ttt gcc cgt ctt cct ctg gag aac aac gac gac cat cgt tct gtg 192

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/058,053

DATE: 02/15/2002

TIME: 14:50:11

Input Set : A:\2314-248.ST25.txt

Output Set: N:\CRF3\02152002\J058053.raw

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139 Leu Phe Ala Arg Leu Pro Leu Glu Asn Asn Asp Asp His Arg Ser Val
140          50          55          60
142 gat ctt cct gca ggg aat ggt gca ggc aac acc aag caa caa gac caa      240
143 Asp Leu Pro Ala Gly Asn Gly Ala Gly Asn Thr Lys Gln Gln Asp Gln
144          65          70          75
146 agt cct cat cat gtg tgt tgt gct att ggt ccg gtt ctt cca ttc tgt      288
147 Ser Pro His His Val Cys Cys Ala Ile Gly Pro Val Leu Pro Phe Cys
148          80          85          90
150 tgt gtc agt tgg ctg cac aaa ctc cat tgaactggcc aatgaaaata      335
151 Cys Val Ser Trp Leu His Lys Leu His
152 95          100
154 actcaggaat agacagaaag gcaaaaaaaaa aaaaaaaaaa      374

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157 &lt;210&gt; SEQ ID NO: 5

158 &lt;211&gt; LENGTH: 103

159 &lt;212&gt; TYPE: PRT

160 &lt;213&gt; ORGANISM: Conus miles

162 &lt;400&gt; SEQUENCE: 5

```

164 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Gly Leu
165 1          5          10          15

```

```

168 Thr Val Gly Ser His Val His Arg Ser His Ser Pro Thr Ser Arg Ser

```

```

169          20          25          30

```

```

172 His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His Leu Phe

```

```

173          35          40          45

```

```

176 Ala Arg Leu Pro Leu Glu Asn Asn Asp Asp His Arg Ser Val Asp Leu

```

```

177          50          55          60

```

```

180 Pro Ala Gly Asn Gly Ala Gly Asn Thr Lys Gln Gln Asp Gln Ser Pro

```

```

181 65          70          75          80

```

```

184 His His Val Cys Cys Ala Ile Gly Pro Val Leu Pro Phe Cys Cys Val

```

```

185          85          90          95

```

```

188 Ser Trp Leu His Lys Leu His

```

```

189          100

```

192 &lt;210&gt; SEQ ID NO: 6

193 &lt;211&gt; LENGTH: 29

194 &lt;212&gt; TYPE: PRT

195 &lt;213&gt; ORGANISM: Conus miles

197 &lt;220&gt; FEATURE:

198 &lt;221&gt; NAME/KEY: PEPTIDE

199 &lt;222&gt; LOCATION: (1)..(29)

200 &lt;223&gt; OTHER INFORMATION: Xaa at residue 1 is Gln or pyro-Glu; Xaa at residues 6, 15

and 18

201 may be Pro or hydroxy-Pro; Xaa at residue 24 may be Trp (D or L)

202 or bromo-Trp (D or L)

205 &lt;400&gt; SEQUENCE: 6

W--&gt; 207 Cys Gln Asp Gln Ser Xaa His His Val Cys Cys Ala Ile Gly Xaa Val

```

208 1          5          10          15

```

W--&gt; 210 Leu Cys Phe Cys Cys Val Ser Xaa Leu His Lys Leu His

```

211          20          25

```

213 &lt;210&gt; SEQ ID NO: 7

214 &lt;211&gt; LENGTH: 359

215 &lt;212&gt; TYPE: DNA

*"Cys" is at location 1**Cys is at location 18*

## RAW SEQUENCE LISTING

DATE: 02/15/2002

PATENT APPLICATION: US/10/058,053

TIME: 14:50:11

Input Set : A:\2314-248.ST25.txt

Output Set: N:\CRF3\02152002\J058053.raw

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216 <213> ORGANISM: Conus miles
218 <220> FEATURE:
219 <221> NAME/KEY: CDS
220 <222> LOCATION: (7)..(291)
222 <400> SEQUENCE: 7
223 ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg gtg      48
224      Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val
225      1          5          10
227 ggg ttc acc gtc ggg ggt cac gtc cat cgg tct cac agt cct aca tcg      96
228 Gly Phe Thr Val Gly Gly His Val His Arg Ser His Ser Pro Thr Ser
229 15          20          25          30
231 cgc agc cat ggt gat gac tcc att cat gac aag acg att cat caa cat      144
232 Arg Ser His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His
233          35          40          45
235 ctg ttt gcc cgt ctt cct cag gag aac aac gac gac cat cgt tct gtg      192
236 Leu Phe Ala Arg Leu Pro Gln Glu Asn Asn Asp Asp His Arg Ser Val
237          50          55          60
239 gat ctt cct gca ggg act agc gca ggc gac atg aaa cca caa cgc caa      240
240 Asp Leu Pro Ala Gly Thr Ser Ala Gly Asp Met Lys Pro Gln Arg Gln
241          65          70          75
243 aga cgt ctc tgc tgc atc ttt gcc ccg att ctt tgg ttc tgt tgt cac      288
244 Arg Arg Leu Cys Cys Ile Phe Ala Pro Ile Leu Trp Phe Cys Cys His
245          80          85          90
247 ggt taacagctca aattacactg cactggccga ttgaaagaac tgcaataaac      341
248 Gly
249 95
251 ggaaaaaaaaa aaaaaaaaaa      359
254 <210> SEQ ID NO: 8
255 <211> LENGTH: 95
256 <212> TYPE: PRT
257 <213> ORGANISM: Conus miles
259 <400> SEQUENCE: 8
261 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Gly Phe
262 1          5          10          15
265 Thr Val Gly Gly His Val His Arg Ser His Ser Pro Thr Ser Arg Ser
266          20          25          30
269 His Gly Asp Asp Ser Ile His Asp Lys Thr Ile His Gln His Leu Phe
270          35          40          45
273 Ala Arg Leu Pro Gln Glu Asn Asn Asp Asp His Arg Ser Val Asp Leu
274          50          55          60
277 Pro Ala Gly Thr Ser Ala Gly Asp Met Lys Pro Gln Arg Gln Arg Arg
278 65          70          75          80
281 Leu Cys Cys Ile Phe Ala Pro Ile Leu Trp Phe Cys Cys His Gly
282          85          90          95
285 <210> SEQ ID NO: 9
286 <211> LENGTH: 14
287 <212> TYPE: PRT
288 <213> ORGANISM: Conus miles
290 <220> FEATURE:

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/058,053

DATE: 02/15/2002

TIME: 14:50:11

Input Set : A:\2314-248.ST25.txt

Output Set: N:\CRF3\02152002\J058053.raw

291 <221> NAME/KEY: PEPTIDE  
 292 <222> LOCATION: (1)..(14)  
 293 <223> OTHER INFORMATION: Xaa at residue 7 may be Pro or hydroxy-Pro; Xaa at residue  
 10 may  
 294 be Trp (D or L) or bromo-Trp (D or L)  
 297 <400> SEQUENCE: 9  
 299 Leu Cys Cys Ile Phe Ala Xaa Ile Leu Xaa Phe Cys Cys His  
 300 1 5 10  
 302 <210> SEQ ID NO: 10  
 303 <211> LENGTH: 351  
 304 <212> TYPE: DNA  
 305 <213> ORGANISM: Conus capitaneus  
 307 <220> FEATURE:  
 308 <221> NAME/KEY: CDS  
 309 <222> LOCATION: (7)..(291)  
 311 <400> SEQUENCE: 10  
 312 ggatcc atg cag acg gcc tac tgg gtg atg gtg atg atg atg gtg gtg 48  
 313 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Val Val  
 314 1 5 10  
 316 ggg ttc acc gtc ggg ggt cac gtc cat cgg tct cac agt cct aca tcg 96  
 317 Gly Phe Thr Val Gly Gly His Val His Arg Ser His Ser Pro Thr Ser  
 318 15 20 25 30  
 320 cgc agc cat ggt gat gac tcc att cat gac gag acg att cat caa cat 144  
 321 Arg Ser His Gly Asp Asp Ser Ile His Asp Glu Thr Ile His Gln His  
 322 35 40 45  
 324 ctg ttt gcc cgt ctt cct cag gag aac aac gac gac cat cgt tct gtg 192  
 325 Leu Phe Ala Arg Leu Pro Gln Glu Asn Asn Asp Asp His Arg Ser Val  
 326 50 55 60  
 328 gat ctt cct gca ggg act agc gca ggc gac atg aaa cca caa cgc caa 240  
 329 Asp Leu Pro Ala Gly Thr Ser Ala Gly Asp Met Lys Pro Gln Arg Gln  
 330 65 70 75  
 332 aga ggt ttc tgc tgc gac ttt ccc ccg att ttt tgg ttc tgt tgt atc 288  
 333 Arg Gly Phe Cys Cys Asp Phe Pro Pro Ile Phe Trp Phe Cys Cys Ile  
 334 80 85 90  
 336 ggt taacagcaca aattacactg cactggccga ttgaaagaac tgcaataaac 341  
 337 Gly  
 338 95  
 340 ggaaaaaaaaa 351  
 343 <210> SEQ ID NO: 11  
 344 <211> LENGTH: 95  
 345 <212> TYPE: PRT  
 346 <213> ORGANISM: Conus capitaneus  
 348 <400> SEQUENCE: 11  
 350 Met Gln Thr Ala Tyr Trp Val Met Val Met Met Met Val Val Gly Phe  
 351 1 5 10 15  
 354 Thr Val Gly Gly His Val His Arg Ser His Ser Pro Thr Ser Arg Ser  
 355 20 25 30  
 358 His Gly Asp Asp Ser Ile His Asp Glu Thr Ile His Gln His Leu Phe  
 359 35 40 45  
 362 Ala Arg Leu Pro Gln Glu Asn Asn Asp Asp His Arg Ser Val Asp Leu

Use of n and/or Xaa has been detected in the Sequence Listing.  
 The following table lists the positions of the n and/or Xaa in the  
 sequence listing. The positions are listed in the <223> fields of  
 each sequence using n or Xaa.

VERIFICATION SUMMARY  
PATENT APPLICATION: US/10/058,053

DATE: 02/15/2002  
TIME: 14:50:12

Input Set : A:\2314-248.ST25.txt  
Output Set: N:\CRF3\02152002\J058053.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No  
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:299 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15  
L:470 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15  
L:511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16  
L:513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16  
L:558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:644 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24  
L:735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24  
L:819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:822 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:867 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:913 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30  
L:916 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30  
L:1014 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33  
L:1017 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33  
L:1020 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33  
L:1118 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36  
L:1121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36  
L:1124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36  
L:1207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39  
L:1210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39  
L:1308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42  
L:1311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42  
L:1314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42  
L:1403 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45  
L:1406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45  
L:1490 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48  
L:1493 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48  
L:1575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51  
L:1578 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51  
L:1667 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54  
L:1670 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54  
L:1763 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57  
L:1766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57  
L:1769 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57  
L:1850 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60  
L:1853 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60  
L:1945 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/058,053

DATE: 02/15/2002

TIME: 14:50:12

Input Set : A:\2314-248.ST25.txt

Output Set: N:\CRF3\02152002\J058053.raw

L:1948 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63  
L:2029 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:2032 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:2115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69